IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Phillip M. Adams	)
		)
Serial No.:	10/727,798	)
		) Art Unit:
Filed:	December 4, 2003	) 3629
		)
For:	STUDENT-CENTERED, CROSS-INSTITUTIONAL	)
	CURRICULUM MANAGEMENT SYSTEM	)
	APPARATUS AND METHOD	)
		)
Examiner:	Gabrielle A. McCormick	

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA, 22313-1450

Dear Sir:

        Responsive to the Office Action mailed May 4, 2010, Applicant respectfully submits the

present Appeal Brief and appeals the rejection of the claims of the above-identified patent

application and requests reconsideration of the claims in view of the following remarks.

I. REAL PARTY IN INTEREST

Phillip M. Adams (hereinafter "Appellant") is the Real Party in Interest as the sole owner of the new technology embodied in the above-identified patent application.

II. RELATED APPEALS AND INTERFERENCES

To the knowledge of Appellant and his legal counsel, there are no pending appeals or interferences that will directly effect or will be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-25 have been presented at one time or another during prosecution of the present application. Claims 3, 14-16, 21 and 22 have been canceled. Claims 1, 2, 4-13, 17-20 and 23-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over various combinations and sub-combinations of Hall (US Pub. No. 2002/0049743) (hereinafter "Hall") in view of Wenger (US Pub. No. 2003/0233242) (hereinafter "Wenger") in view of Fields et al. (US Pub. No. 2003/0055842) (hereinafter "Fields") in view of Curriculum Sequencing (found at http://www10.org/cdrom/papers/207/node5.html, published 2001-02-13) (hereinafter "Curriculum Sequencing") in view of ABA ("Data that supports 1 to 1". American Bankers Association. ABA Banking Journal. New York: Oct 2000. Vol. 92, Iss. 10; pg. 60) (hereinafter "ABA") in view of Eguchi et al. ("Rule-based XML". Artificial Intelligence and Law. Dordrecht: 2002. Vol. 10, Iss. 4; pg. 283) (hereinafter "Eguchi").

Applicant appeals the rejection of claims 1, 2, 4-13, 17-20 and 23-25 under 35 U.S.C. §103(a) as being unpatentable over the prior art.

IV. STATUS OF AMENDMENTS

The last amendment to the claims of the present application was filed April 12, 2010 in response to a non-final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Throughout the world, America has long been admired for its postsecondary educational system. Although all postsecondary educational institutions may be grouped into a single class of institutions, in reality, these institutions may be quite varied in their offerings. Despite past successes of the postsecondary education system in the United States, many institutions of higher learning are facing various crises. Much of the failure of the postsecondary educational system as a delivery vehicle for education may be attributed to the fact that the system has been designed as a business model targeting growth and full employment of its departments, rather than an educational model. The current model stifles competition between educational institutions.

Competition or equal availability between different educational institutions may enable a student to compare and shop for services offered by those educational institutions. Thus, a student may optimize selected preferences such as his or her class schedule, days of the week to take classes, tuition costs, location or timing of courses, and the like. Appellant has conceived of apparatus and methods to compare features of courses and degree programs as one would compare products, to provide some standard characteristics comparable to those of other

commodities in an effort to provide more competition between educational institutions and wider more informed choices to students.

A.   Claim 1

A student-centered, cross-institutional curriculum management system 280 may be used to mine data from the servers 270a-e for use in managing a student's curriculum. In certain embodiments, the management system 280 may include a web search engine 282, a mining engine 284, an equivalency module 286, an expert system 288, a comparison or organization module 290, a user interface 292, a database 294, and other modules 296.

For example, a web search engine 282 may be specifically tailored to search for information offered by educational institutions 60 on web servers 270a-e. In presently contemplated embodiments, the web search engine 282 may enable a student to search for information corresponding to selected institutions 60, degree programs 64, courses 126, and the like. A mining engine 284 may include a page parser 298, a crawler 300, an indexing module 302, and the like. For example, a page parser 298 may be programmed to parse XML pages 250a-c, 274, or other available data located on the Internet 271, to extract desired information sought with respect to education. The page parser 298 may work with an indexing module 302 to identify and index information identified by tags 252 in the XML pages 250. In addition, a crawler 300 may be provided to scour the Internet 271 for information corresponding to educational institutions 60, degree programs 64, courses 126, and the like.

The management system 280 may also include an equivalency module 286 to determine the equivalency of degree programs 64 and courses 126 offered by different institutions 60. For example, although institutions 60 may offer courses 126 of identical or similar subject matter,

these courses 126 may be identified with distinct course numbering systems. Thus, in certain embodiments, the equivalency module 286 may function by comparing the content of these courses 126 to identify equivalency therebetween. In certain cases, equivalency may be determined by specific policies of educational institutions 60 with respect to the transfer of credits therebetween.

The management system 280 may also include an expert system 288 to assist a student in planning, optimizing, and completing a degree program 64. The expert system 288 may identify selected preferences that a student may have with respect to a selected curriculum, and may plan the curriculum by retrieving information in accordance with the preferences.

The management system 280 may also include a comparison or organization module 290 for use by a student or other entity to compare or organize selected institutions 304, degree programs 306, courses 308 offered by institutions 60, or other criteria 310, as needed. A user interface 292 may function to enable a user to interact with the management system 280. For example, a user interface 292 may receive data in response to interrogatories presented to a user. Likewise, the user interface 292 may enable a user to select preferences with respect to his or her curriculum. The user interface 292 may also present, organize, and compare data, as needed, for a user.

Likewise, the management system 280 may include a database 294 including a database engine 312 and records 314. The database engine 312 may be effective to store, retrieve, modify and search records 314 within the database 294. Records 314 within the database 294 may include records corresponding to student information 316, student preferences 318, degree programs 320, indexes for searching the web 322, indexes 324 of information that has been mined over the Internet, equivalency tables 326 containing information with respect to

normalizing the equivalency of courses 126 offered by various institutions 60, as well as other records 328.

Referring to Figure 6 (and described in Appellant's specification on pages 20-21), while continuing to refer generally to Figure 5, requirements 175 may be organized into a degree dependency graph, such as a degree tree structure 180. A degree tree structure 180 simply represents one example of a dependency graph that may be used in accordance with the invention. Other types of dependency graphs may include linked lists, double linked lists, content-addressable memory structures, networks, or other topologies.

A degree tree structure 180 may be considered a map or path to earn a degree 64. For example, requirements 175 or entries 175 within a degree tree structure 180 may be satisfied by general education 84, lower division major 170, upper division major 96, and elective courses 88 satisfying the graduation 82 and degree 88 requirements. The degree tree structure 180 may show relationships between requirements 175, such as prerequisites 175a for other courses 175c.

Likewise, other courses 175d, 175e may be corequisites within the degree tree structure 180. Some courses 175f may serve as prerequisites for multiple other courses 175g-j. If desired, the degree structure 180 may be divided up into a series of quarters, trimesters, or semesters 182a-c so a time may be estimated for completing a degree 64.

For example, selected courses may be taken during a first semester 182 while other selected courses may be taken during a second semester 182b. Likewise, the degree tree structure 180 may be divided into courses 184 taken before admission to a degree program 64, and courses 186 that are taken after admission to a degree program 64. Various requirements 175 within the degree tree structure 180 may be satisfied by several different courses 126. Others may be satisfied only by completing a specific course.

As stated, the degree tree structure 180 represents a path or map to complete a degree 64 at a selected institution 60. However, once the degree tree structure 180 is established, a student may be able to satisfy particular requirements 175 at other more preferred institutions 60. Thus, once the degree tree structure 180 is established, a student may be able to take courses 126 at another institution 60. This may enable a student to more efficiently achieve a degree 64.

B.   Claim 20

A student-centered, cross-institutional curriculum management system 280 may be used to mine data from the servers 270a-e for use in managing a student's curriculum. In certain embodiments, the management system 280 may include a web search engine 282, a mining engine 284, an equivalency module 286, an expert system 288, a comparison or organization module 290, a user interface 292, a database 294, and other modules 296.

For example, a web search engine 282 may be specifically tailored to search for information offered by educational institutions 60 on web servers 270a-e. In presently contemplated embodiments, the web search engine 282 may enable a student to search for information corresponding to selected institutions 60, degree programs 64, courses 126, and the like. A mining engine 284 may include a page parser 298, a crawler 300, an indexing module 302, and the like. For example, a page parser 298 may be programmed to parse XML pages 250a-c, 274, or other available data located on the Internet 271, to extract desired information sought with respect to education. The page parser 298 may work with an indexing module 302 to identify and index information identified by tags 252 in the XML pages 250. In addition, a crawler 300 may be provided to scour the Internet 271 for information corresponding to educational institutions 60, degree programs 64, courses 126, and the like.

The management system 280 may also include an equivalency module 286 to determine the equivalency of degree programs 64 and courses 126 offered by different institutions 60. For

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example, although institutions 60 may offer courses 126 of identical or similar subject matter, these courses 126 may be identified with distinct course numbering systems. Thus, in certain embodiments, the equivalency module 286 may function by comparing the content of these courses 126 to identify equivalency therebetween. In certain cases, equivalency may be determined by specific policies of educational institutions 60 with respect to the transfer of credits therebetween.

The management system 280 may also include an expert system 288 to assist a student in planning, optimizing, and completing a degree program 64. The expert system 288 may identify selected preferences that a student may have with respect to a selected curriculum, and may plan the curriculum by retrieving information in accordance with the preferences.

The management system 280 may also include a comparison or organization module 290 for use by a student or other entity to compare or organize selected institutions 304, degree programs 306, courses 308 offered by institutions 60, or other criteria 310, as needed. A user interface 292 may function to enable a user to interact with the management system 280. For example, a user interface 292 may receive data in response to interrogatories presented to a user. Likewise, the user interface 292 may enable a user to select preferences with respect to his or her curriculum. The user interface 292 may also present, organize, and compare data, as needed, for a user.

Likewise, the management system 280 may include a database 294 including a database engine 312 and records 314. The database engine 312 may be effective to store, retrieve, modify and search records 314 within the database 294. Records 314 within the database 294 may include records corresponding to student information 316, student preferences 318, degree programs 320, indexes for searching the web 322, indexes 324 of information that has been mined over the Internet, equivalency tables 326 containing information with respect to

normalizing the equivalency of courses 126 offered by various institutions 60, as well as other records 328.

C.   **Claim 23**

A student-centered, cross-institutional curriculum management system 280 may be used to mine data from the servers 270a-e for use in managing a student's curriculum. In certain embodiments, the management system 280 may include a web search engine 282, a mining engine 284, an equivalency module 286, an expert system 288, a comparison or organization module 290, a user interface 292, a database 294, and other modules 296.

For example, a web search engine 282 may be specifically tailored to search for information offered by educational institutions 60 on web servers 270a-e. In presently contemplated embodiments, the web search engine 282 may enable a student to search for information corresponding to selected institutions 60, degree programs 64, courses 126, and the like. A mining engine 284 may include a page parser 298, a crawler 300, an indexing module 302, and the like. For example, a page parser 298 may be programmed to parse XML pages 250a-c, 274, or other available data located on the Internet 271, to extract desired information sought with respect to education. The page parser 298 may work with an indexing module 302 to identify and index information identified by tags 252 in the XML pages 250. In addition, a crawler 300 may be provided to scour the Internet 271 for information corresponding to educational institutions 60, degree programs 64, courses 126, and the like.

The management system 280 may also include an equivalency module 286 to determine the equivalency of degree programs 64 and courses 126 offered by different institutions 60. For example, although institutions 60 may offer courses 126 of identical or similar subject matter, these courses 126 may be identified with distinct course numbering systems. Thus, in certain embodiments, the equivalency module 286 may function by comparing the content of these

courses 126 to identify equivalency therebetween. In certain cases, equivalency may be determined by specific policies of educational institutions 60 with respect to the transfer of credits therebetween.

The management system 280 may also include an expert system 288 to assist a student in planning, optimizing, and completing a degree program 64. The expert system 288 may identify selected preferences that a student may have with respect to a selected curriculum, and may plan the curriculum by retrieving information in accordance with the preferences.

The management system 280 may also include a comparison or organization module 290 for use by a student or other entity to compare or organize selected institutions 304, degree programs 306, courses 308 offered by institutions 60, or other criteria 310, as needed. A user interface 292 may function to enable a user to interact with the management system 280. For example, a user interface 292 may receive data in response to interrogatories presented to a user. Likewise, the user interface 292 may enable a user to select preferences with respect to his or her curriculum. The user interface 292 may also present, organize, and compare data, as needed, for a user.

Likewise, the management system 280 may include a database 294 including a database engine 312 and records 314. The database engine 312 may be effective to store, retrieve, modify and search records 314 within the database 294. Records 314 within the database 294 may include records corresponding to student information 316, student preferences 318, degree programs 320, indexes for searching the web 322, indexes 324 of information that has been mined over the Internet, equivalency tables 326 containing information with respect to normalizing the equivalency of courses 126 offered by various institutions 60, as well as other records 328.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant respectfully requests review to determine whether claims 1, 2, 4-13, 17-20 and

23-25 are unpatentable under 35 U.S.C. §103(a) over the prior art.

VII.   ARGUMENT

A.   Rejection of Claims 1, 2, 4-13, 17-20 and 23-25 under 35 U.S.C. §103(a) as Being Unpatentable over Prior Art

To establish a *prima facie* case of obviousness, the examiner must first find all of the

claimed elements, and then provide clear articulation of the reason(s) why the claimed invention

would have been obvious. *See* MPEP 2143. With respect to the present rejection, Appellant

asserts that the examiner fails to do this.

1.   Claims 1, 2, 10-13 and 17-19

Claims 1, 2, 10-13 and 17-19 are currently rejected under 35 U.S.C. §103(a) as being

unpatentable over Hall in view of Wenger in view of Fields in view of Curriculum Sequencing.

Claims 1, 2, 10-13 and 17-19 require determining equivalencies between courses before

receiving any inputs from a student to whom those equivalencies pertain. Moreover, these

claims require presenting a plurality of degrees, or degree options, to a student and not just a

possible curriculum for one given degree, again before receiving any inputs from a student.

Appellant does not find in any viable combination of the cited prior art any teaching or

suggestion of determining equivalencies between courses before receiving any inputs from a

student to whom those equivalencies pertain, nor does Appellant find in the cited prior art any

teaching or suggestion of presenting a plurality of degrees to a student before receiving any

inputs from a student.

Importantly, nowhere does the examiner attempt to provide prior art that alleges to teach presenting a plurality of degrees to a student after the system has prepared the comparison of courses and identification of equivalences and storing of equivalencies all before input from the student. Accordingly, all of the elements of independent claim 1 are not found in the prior art asserted and so they are not present to be put together.

Moreover, the result of presenting a plurality of degrees to a student after the system has prepared the comparison of courses and identification of equivalences and storing of equivalencies all before input from the student is that the student receives expanded information regarding how to obtain any number of degrees utilizing numerous educational institutions. Any combination of the current available prior art does not provide the same result.

The examiner attempted to show that the determining of equivalencies between courses in the current invention was obvious based on a two-step analysis. First, Wenger was cited by the examiner as support for the development of a "Database of Equivalencies," which is developed by partner schools within the system (Wenger, P[008]). The examiner then coupled Wenger to Hall. *See* Final Office Action mailed May 4, 2010 at page 4. Second, Fields was cited by the examiner as support for determination of equivalencies by comparison of keywords in text course descriptions and then Fields was coupled to Hall. *Id.* Appellant finds that this two-step process from the examiner results in an incompatible pairing of Wenger and Fields.

The obviousness rejection relied upon requires not just the coupling of Wenger to Hall and then Fields to Hall, as implied by the examiner. A proper rejection requires the coupling of all the prior art, Hall and Wenger and Fields. However, Wenger and Fields are not compatible. Wenger teaches the creation of a "Database of Equivalents" that is decided upon by the partner schools within the system, essentially having actual school administrators or representatives meet and decide what courses would be considered equivalents. Fields teaches determining

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equivalencies by comparing keywords in the text of course descriptions. These two methods of determining equivalencies are incompatible because they teach entirely different, separate means or methods. It would be useless to have a system that compares keywords in the text of course descriptions to determine equivalencies (Fields) if the system already had a "Database of Equivalencies" (Wenger), and vice versa. In fact, such a dual system would be detrimental because it could produce confusing inconsistencies. *See* MPEP 2143.01.

The method of reasoning attempting to establish obviousness as used here shows what could be described as the "bucket of bolts" approach; if all the pieces are in the prior art, the pieces must fit together somehow. In this case, Appellant asserts that the pieces asserted to be provided by Wenger and Fields do not fit together. The combination of Wenger and Fields would produce an undesirable, unstable system.

With respect to claims 12 and 13, the examiner claims that "Hall discloses course availability (i.e., scheduling information) and generating a 'custom course map degree plan based on course offerings'. (P[0029])." *See* Final Office Action mailed May 4, 2010 at page 5. However, the citation provided by the examiner does not support the examiner's characterization of the prior art. Course availability and course scheduling information are not the same thing. Course availability relates to what semester a course may be offered, or which educational facility may offer a course, while course scheduling relates to the actual time and place a course is presented. Obviousness has not been established for the scheduling information element found in claims 12 and 13.

Thus, the prior art needed to show obviousness of claims 1, 2, 10-13 and 17-19 is not compatible, and/or not available. *See* MPEP 2143.

2.   Claims 20 and 23-25

Claims 20 and 23-25 are currently rejected under 35 U.S.C. §103(a) as being unpatentable over Hall in view of Wenger in view of Fields in view of ABA in view of Eguchi.

Claims 20 and 23-25 require determining equivalencies between courses before receiving any inputs from a student to whom those equivalencies pertain. Moreover, these claims require presenting a plurality of degrees, or degree options, to a student and not just a possible curriculum for one given degree, again before receiving any inputs from a student. Appellant does not find in any viable combination of the cited prior art any teaching or suggestion of determining equivalencies between courses before receiving any inputs from a student to whom those equivalencies pertain, nor does Appellant find in the cited prior art any teaching or suggestion of presenting a plurality of degrees to a student before receiving any inputs from a student.

Generally, the same arguments used to show that claims 1, 2, 10-13 and 17-19 are not obvious also apply to claims 20 and 23-25. Specifically, Wenger and Fields are incompatible prior art and the combination would result in an undesirable, unstable system. Thus, they cannot form the basis for a viable obviousness rejection.

When arguing the obviousness of claims 20 and 23-25, the examiner asserts that Hall presents "the plurality of degrees to a student. (P[0021])." *See* Final Office Action mailed May 4, 2010 at pages 8 and 10. First, the examiner makes no such claim in characterizing Hall with respect to the alleged obviousness of claim 1. *See* Final Office Action mailed May 4, 2010, compare page 3 (alleging "degree plans") and pages 8 and 10. The examiner appears to be equating a plurality of degrees with a plurality of plans, but they are not the same. Second, Hall simply does not disclose presenting a plurality of degrees, or degree options, to a student after the

system has prepared the comparison of courses and identification of equivalences and storing of equivalencies all before input from the student.

Thus, Appellant asserts that there is still no prior art cited that teaches or suggests this element found in claims 20 and 23-25. *See* MPEP 2143.

In view of the foregoing, Appellant asserts that the examiner failed to find all of the claimed elements and provide clear articulation of the reason(s) why the claimed invention would have been obvious. *See* MPEP 2143. Accordingly, reversal of these rejections is respectfully requested.

DATED this 27th day of September, 2010.

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Respectfully submitted,

/A. John Pate 2456-2-12-1 100927/

_____

A. John Pate
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CLAIMS APPENDIX

1. A method for automatically creating and managing, for presentation to a student, an individually customized curriculum of study across a plurality of educational offerings, the method comprising:

preparing comprising

identifying a first educational institution, offering a first plurality of courses and a plurality of degrees, each degree thereof having corresponding requirements established by the first educational institution as conditions precedent for awarding the degree,

identifying a second educational institution offering a second plurality of courses,

comparing, by a computer system, text characterizing course content of the first and second plurality of courses,

identifying, by the computer system, equivalencies between courses of the first and second plurality of courses, based on the comparing, and

storing in the computer system a database comprising records reflecting the equivalencies;

presenting, by the computer system over a computer network after the preparing, the plurality of degrees to a student;

selecting, by the student over the computer network after the preparing, a first degree from among the plurality of degrees;

selecting, by the computer system after the preparing, first courses from the first plurality of courses and second courses from the second plurality of courses;

organizing, by the computer system after the preparing, the first degree into a dependency graph establishing a hierarchy of requirements corresponding to the first degree;

populating, by the computer system after the preparing, the dependency graph with the first courses and the second courses, the first courses and second courses collectively satisfying, according to the equivalencies, the requirements corresponding to the first degree; and

presenting to the student, by the computer system over the computer network after the preparing, the dependency graph to the student.

2. The method of claim 1, wherein the preparing further comprises

mining, over the network, by the computer system, first catalog information in a first course catalog corresponding to the first educational institution to identify the first plurality of courses, and

identifying the second plurality of courses by mining second catalog information contained in a second course catalog corresponding to the second educational institution.

3. (canceled)

4. The method of claim 2, wherein the preparing further comprises:

creating, by a third party unaffiliated with the first and second educational institutions, a standardized coding system; and

delimiting analogous text in the first and second catalog information with standardized codes selected from the standardized coding system to enable comparison of the analogous text.

5. The method of claim 4, wherein delimiting further comprises delimiting the analogous text in the first and second catalog information with XML tags, and providing the analogous text in the form of XML pages available on the network.

6. The method of claim 4, wherein delimiting further comprises embedding XML tags into the source code of HTML pages containing the first and second catalog information.

7. The method of claim 4, wherein delimiting further comprises creating, by the third party XML pages identifying information in the first and second catalog information with XML tags.

8. The method of claim 4, wherein mining further comprises mining, over the network, information in the first and second catalog information by searching the standardized codes.

9. (canceled)

10. The method of claim 1, further comprising selecting, by the student after the preparing, preferences with respect to the first and second courses used to populate the dependency graph.

11. The method of claim 10, wherein preferences are selected from the group consisting of preferred times, preferred days, cost, credit hour load, desired time to graduate, and preferred location to take courses.

12. The method of claim 10, further comprising gathering, by the computer system, scheduling information with respect to the first and second courses used to populate the dependency graph.

13. The method of claim 12, further comprising creating, for the student by the computer system, a class schedule in accordance with the preferences and the scheduling information.

14-16. (canceled)

17. The method of claim 1, further comprising importing, by the computer system after the preparing, existing credits of the student into the dependency graph prior to populating the dependency graph.

18. The method of claim 1, wherein the preparing occurs independently from all inputs from the student.

19. The method of claim 1, wherein:

the identifying equivalencies further comprises creating, by the computer system, a plurality of sets, each set of the plurality of sets comprising all courses from within the first and second plurality of courses that are substantially equivalent to each other in satisfying a degree requirement of a degree of the plurality of degrees; and

the storing further comprises storing the plurality of sets within the database.

20. A method for automatically creating and managing, for presentation to a student, an individually customized curriculum of study across a plurality of educational offerings, the method comprising:

preparing, independently from all inputs from a student, comprising

identifying a first plurality of courses and a plurality of degrees offered by a first educational institution, each degree thereof having corresponding requirements established by the first educational institution as conditions precedent for awarding the degree,

identifying a second educational institution offering a second plurality of courses,

identifying first text corresponding to the first plurality of courses and second text corresponding to the second plurality of courses delimited with XML tags to create XML pages wherein a first portion of the first text and a second portion of the second text are delimited with identical XML tags to reflect an equivalence of data type therebetween,

mining, by a computer system, the XML pages to create a record of courses selected from the first and second plurality of courses, and

storing in the computer system a database comprising records reflecting equivalencies between individual courses selected from the first and second plurality of courses;

presenting, by the computer system over the computer network after the preparing, the plurality of degrees to the student;

selecting, by the student over the computer network after the preparing, a first degree from among the plurality of degrees;

populating, by the computer system after the preparing, a curriculum with selected courses from the record of courses, the selected courses collectively satisfying, according to the equivalencies, the requirements corresponding to the first degree; and

presenting to the student, by the computer system over the computer network after the preparing, the curriculum.

21-22. (canceled)

23. A computer method, automatically creating and managing, for presentation to a student, an individually customized curriculum of study across a plurality of educational institutions, the method comprising:

preparing, independently from all inputs from a student, comprising

identifying a first catalog authorized by a first educational institution and setting forth a first plurality of courses and a plurality of degrees, each degree thereof having corresponding requirements established by the first educational institution as conditions precedent for awarding the degree,

identifying a second catalog authorized by a second educational institution and setting forth a second plurality of courses,

creating, by a third party independent from the first and second educational institutions, a standardized coding system comprising a plurality of standardized codes,

differentiating text from the first and second catalogs by data type,

delimiting data types using the plurality of standardized codes,

comparing, by a computer system, first text from the first catalog to second text from the second catalog, the first and second texts each being delimited by the identical standardized code of the plurality of standardized codes, and

identifying, by the computer system based on the comparing, equivalencies between courses of the first and second plurality of courses;

presenting, by the computer system over a computer network after the preparing, the plurality of degrees to the student;

selecting, by the student over the computer network after the preparing, a first degree from among the plurality of degrees;

selecting, by the computer system after the preparing, first courses from the first plurality of courses and second courses from the second plurality of courses;

populating, by the computer system after the preparing, a curriculum with the first courses and the second courses, the first courses and second courses collectively satisfying, according to the equivalencies, the requirements corresponding to the first degree; and

presenting to the student, by the computer system over the computer network after the preparing, the curriculum.

24. The method of claim 23, wherein the identifying equivalencies further comprises:

creating, by the computer system, a plurality of sets, each set of the plurality of sets comprising all courses from within the first and second plurality of courses that are substantially equivalent to each other in satisfying a degree requirement of a degree of the plurality of degrees; and

storing the plurality of sets.

25. The method of claim 20, wherein the storing further comprises:

creating, by the computer system, a plurality of sets, each set of the plurality of sets comprising all courses from within the first and second plurality of courses that are substantially equivalent to each other in satisfying a degree requirement of a degree of the plurality of degrees; and

storing the plurality of sets within the database.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None